



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 33

Amendment No. 33-33

Airworthiness Standards: Aircraft Engines; Technical Amendment

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; technical amendment.

SUMMARY: This amendment clarifies aircraft engine vibration test requirements in the airworthiness standards. The clarification is in response to inquiries from applicants requesting FAA engine type certifications and aftermarket certifications, such as supplemental type certificates, parts manufacturing approvals, and repairs. We are revising the regulations to clarify that “engine surveys” require an engine test. The change is not substantive in nature, and will not impose any additional burden on any person.

DATES: This amendment becomes effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

FOR FURTHER INFORMATION: For technical questions concerning this action, contact Dorina Mihail, Federal Aviation Administration, Engine and Propeller Directorate, Standards Staff, ANE-110, 12 New England Executive Park, Burlington, Massachusetts 01803-5229; (781) 238-7153; facsimile: (781) 238-7199; e-mail: dorina.mihail@faa.gov.

For legal questions concerning this action, contact Vincent Bennett, Federal Aviation Administration, Office of Regional Counsel, ANE-7, 12 New England Executive Park, Burlington, Massachusetts 01803-5299; telephone (781) 238-7044; fax (781) 238-7055; e-mail vincent.bennett@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The airworthiness standards in § 33.83 refer to engine surveys, vibration surveys, vibration test, or simply surveys with the intent to prescribe engine vibration surveys conducted by the means of an engine test. This intent has been applied since the regulation was first issued in 1964 and is common certification practice. However, FAA continues to receive requests for clarification in regard to the “engine surveys” required in the second sentence of § 33.83(a). The requested clarification was whether an “appropriate combination of experience, analysis, and component test” is acceptable in lieu of an engine test. We are revising § 33.83(a) to clarify that the applicants must conduct the engine surveys by the means of an engine test, and that the applicants may use an “appropriate combination of experience, analysis, and component test” in support of conducting the engine test. This clarification is not substantive in nature, and will not impose any additional burden on any person.

List of Subjects in 14 CFR Part 33

Aircraft, Aviation safety.

The Amendment

In consideration of the following, the Federal Aviation Administration amends part 33 of Title 14, Code of Federal Regulations, as follows:

PART 33—AIRWORTHINESS STANDARDS: AIRCRAFT ENGINES

1. The authority citation for part 33 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701-44702, 44704.

2. Revise § 33.83(a) to read as follows:

§ 33.83 Vibration test.

(a) Each engine must undergo vibration surveys to establish that the vibration characteristics of those components that may be subject to mechanically or aerodynamically induced vibratory excitations are acceptable throughout the declared flight envelope. Compliance with this section must be demonstrated by engine test, and must address, as a minimum, blades, vanes, rotor discs, spacers, and rotor shafts. The conduct of the engine test should be based on an appropriate combination of experience, analysis, and component test.

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Issued in Washington, DC on June 7, 2012.

Lirio Liu
Acting Director, Office of Rulemaking

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